

# MTT

## SERIES

**3**  
PHASE

12VDC: 50A-200A, 24VDC: 30A-300A  
48VDC: 30A-150A, 110/220VDC: 30A-200A

**1**  
PHASE

12/24VDC: 10A-300A, 36/48VDC: 10A-150A  
110VDC: 10A-200A, 220VDC: 10A-100A

### THYRISTOR CONTROLLED BATTERY CHARGER

#### Usage Areas:

- Transformer Centers
- Vessels and Yachts
- Shipyards
- Rail Systems
- Solar Power Plants
- Automobile Services
- Hospitals
- Electrical Devices
- Energy Generation
- Transmission and Distribution Centers
- Petroleum and Natural Gas Industry
- Mining Industry



#### HIGHLIGHTS

- Thyristor Controlled, Full Automatic System with Isolation Transformer
- Available for Using as DC Current Supply
- All Operating Values Adjustable
- Excess/Low Voltage, Over Current, Short Circuit Protection

#### Thyristor Controlled Transformer Battery Charging Rectifier

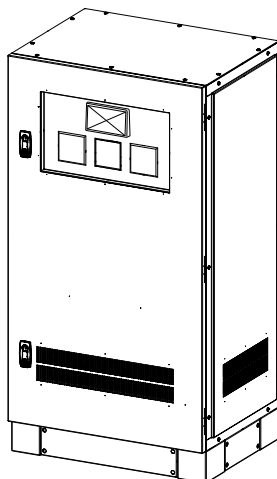
- Transformer battery charging devices are AC/DC rectifiers with automatic constant voltage and constant current properties. The isolation transformer and the load and batteries are completely isolated from the grid system.
- Thyristor control ensures fast regulation and voltage distortions in the mains do not affect the batteries and loads. With the L-C filters on the output, the AC output fluctuation on the DC is less than 1%, helping to maximize the life of the charged battery pack.

#### CERTIFICATES



| MODEL                           |  |                     |
|---------------------------------|--|---------------------|
| <b>INPUT</b>                    |  |                     |
| Phase                           | 3 Phase  | 1 Phase             |
| Voltage                         | 380 V, 400 V, 415 V  | 220 V, 230 V, 240 V |
| Voltage Tolerance               | ±20%   |                     |
| Frequency                       | 50/60Hz (±5%)  |                     |
| Power Factor                    | >0.8   |                     |
| THDi                            | <30%   |                     |
| <b>OUTPUT</b>                   |  |                     |
| Voltage                         | 12 / 24 / 48 / 110 / 220 VDC   |                     |
| Voltage Tolerance               | ±1%  |                     |
| Current                         | Up to 300A   |                     |
| Fast Charging (Boost) Voltage   | Up to 120% of the Float Voltage  |                     |
| Ripple                          | ±1% RMS AC   |                     |
| Dynamic Response                | ±2%  |                     |
| Output Protection               | Electronic Short Circuit / Over Voltage / Over Temperature / Over Current<br>Reverse Voltage (Reverse Connection) Protection |                     |
| <b>INDICATOR/COMMUNICATIONS</b> |  |                     |
| LCD Indicator                   | Voltage, Current, Temperature and Status Information   |                     |
| LED Indicator                   | Mains, Normal, Output, Fault   |                     |
| Alarm                           | Mains Out of Limit, Fault (Adjustable)   |                     |
| Communication                   | RS485 / Modbus Communication Feature   |                     |
| NTC Input                       | Battery Temperature Compensation   |                     |
| Parallel                        | Redundant Operation with Active or Passive Load Sharing Option   |                     |
| Programmed Operation            | Special Process is Applied for Each Process  |                     |
| Input / Output Connection       | Thermic Magnetic Switch / Copper Bus Bar   |                     |
| <b>GENERAL</b>                  |  |                     |
| Topology                        | Isolation Transformer, Thyristor Phase Angle Controlled  |                     |
| Electrical Standards            | EN60146-1-1, EN60335-1 / EN60335-2-29/A2(LVD)<br>EN61000-6-2 / EN61000-6-4 (EMC)   |                     |
| Cooling                         | Forced (Fan)   |                     |
| Isolation Voltage               | 2500VAC Output/Chassis Bridge  |                     |
| Efficiency                      | >85%   |                     |
| Operating Temperature           | 0-50°C   |                     |
| Humidity                        | 5%-90%   |                     |
| Protection Class                | IP20   |                     |
| Altitude                        | Max. 2000m   |                     |

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## OPTIONS

- Individual Outputs for Battery and Load
- Additional LVD Contactor Separating Load and Battery from each other
- Battery Racks Integrated into the Rectifier
- Chassis with Different Protection Class (IP31/IP42/IP54/IP65)
- DC +/- Ground Leakage Protection
- Redundant Operation with Active or Passive Load Sharing Option
- Battery Monitoring / Management System (BMS)
- Analog Hand Measuring Instruments
- Battery Charge Temperature Compensation
- ModBUS Communication